

**REMARKS**

Claims 1-9 are pending in the present application and are rejected. Claims 3-9 are herein amended. New claim 10 is added herein. Claims 1 and 2 are herein cancelled without prejudice.

**Information Disclosure Statement**

The Office Action notes that U.S.P.T.O. rules require that the list of IDS references may not be included in the specification, but must be listed on a separate paper. Specifically, the Office Action refers to JP Utility Model Registration No. 2568225 and JP Patent Application Publication No. 1994-2735A, discussed on pages 1 and 2 of the specification. These references were not cited in the IDS filed on March 15, 2005. Therefore, Applicants herewith file an IDS with a list of references including JP 2568225 and JP 1994-2735A.

**Applicants' Response to Objections to the Drawings**

The Office Action states that Figures 6 and 7 should be designated by a legend such as "Prior Art," because only that which is old is illustrated. Applicants respectfully submit that the structures illustrated in Figures 6 and 7 are not publicly known. As stated in the specification on page 2, lines 6-19, the structures of Figures 6 and 7 are merely conceivable. They are not actual known prior art. Therefore, Applicants respectfully submit that designating Figures 6 and 7 with a legend such as "Prior Art" is unnecessary. Favorable reconsideration is respectfully requested.

**Applicants' Response to Claim Rejections under 35 U.S.C. §112**

**Claims 8 and 9 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention.**

Specifically, the Office Action refers to claim 8 and notes that the term “assuming” is indefinite if it fails to clearly set forth the metes and bounds of the claim. In response, Applicants herein amend claim 8 in order to remove the word “assuming.” Applicants note that additional minor amendments have been made to the claims in order to improve their form.

**Applicants' Response to Claim Rejections under 35 U.S.C. §102**

**Claims 1, 2, 5, 6, 8 and 9 were rejected under 35 U.S.C. §102(e)(2) as being anticipated by Yamamoto (U.S. Patent No. 6,505,822).**

It is the position of the Office Action that Yamamoto discloses the invention as claimed. It is noted that the Office Action interprets sealing rubber layer 41 to be a “cylindrical fitting,” and interprets lower fitting 3, cylindrical main body fitting 7, orifice member 11, and partition plate member 12 cumulatively to be a “cup-shaped second attachment fitting.” With regard to the second attachment fitting, the Office Action interprets the lower fitting 3 to correspond to a bottom wall portion, interprets the cylindrical main body fitting 7 to be a peripheral wall portion, and interprets the lower end 71 of cylindrical main body fitting 7 to be a curved portion. Based on this interpretation, it is the position of the Office Action that Yamamoto anticipates the claims since lower fitting 3 appears to be thicker than cylindrical main body fitting 7.

In response, Applicants respectfully submit this interpretation is unreasonably broad. The Office Action relies on an interpretation of Yamamoto which is in direct conflict with the reference. For instance, element 41 is not a cylindrical fitting, but rather is specifically disclosed to be a “sealing rubber member.” See column 5, line 25. Similarly, element 7 is not a component of a cup-shaped second attachment fitting, but rather is specifically disclosed to be a “cylindrical main body fitting 7.” Column 4, line 38. Finally, element 3 is not merely a bottom wall of a cup-shaped second attachment fitting, but is specifically disclosed to be a “lower fitting 3.” See column 4, line 18. Yamamoto discloses the interaction between these elements: “cylindrical main body fitting 7 being connected at its lower end 71 to an open edge 31 of the lower fitting 3 by crimping fastening means.” Column 4, lines 38-40.

Therefore, Applicants respectfully submit that the Office Action’s interpretation of Yamamoto is unreasonably broad. Lower fitting 3 of Yamamoto is analogous to the cup-shaped second lower fitting 34 of the present invention, and cylindrical main body fitting 7 of Yamamoto is analogous to cylindrical fitting 32 of the present invention. Accordingly, only bottom wall portion 3a, curved portion (unnumbered), and the peripheral wall portion (unnumbered) of lower fitting 3 of Yamamoto should be considered as being analogous to the recited portions of the cup-shaped second attachment fitting 34 of the present invention.

However, in order to clarify the claimed structure, Applicants herein add new claim 10 which recites that the cup-shaped second attachment fitting is “disposed below said diaphragm.” This amendment requires that only lower fitting 3 of Yamamoto be considered analogous to the

cup-shaped second fitting of the present invention. Yamamoto does not anticipate the invention as claimed, since all portions of lower fitting 3 appear to be of equal thickness.

With regard to claim 5, Applicants respectfully submit that Yamamoto does not disclose the non-serration bonding portion as claimed. Claim 5 requires that the non-serration bonding portion be formed on the “lower end” of the through-hole. However, in Yamamoto, the non-serration bonding portion is disposed at the upper end of the through-hole. Therefore, Yamamoto’s structure is different from the structure of claim 5, which requires the non-serration bonding portion to be at the “lower end” of the through-hole.

Finally, with regard to claims 8 and 9, Applicants respectfully submit that the Office Action provides no support for the assertion that Yamamoto discloses the recited relationship between the outside diameter of the serration portion, the aperture diameter of the through-hole and the axial length of a bonding portion of the serration portion to the through-hole. Thus, Applicants respectfully traverse this rejection. Favorable reconsideration is respectfully requested.

**Applicants’ Response to Claim Rejections under 35 U.S.C. §103**

**Claims 1-3, 5, 8 and 9 were rejected under 35 U.S.C. §103(a) as being unpatentable over Figure 6 in view of JP-4114145 (JP ‘145).**

It is the position of the Office Action that Figure 6 discloses the invention as claimed, with the exception of a through hole and much of the recited structure. The Office Action relies on JP ‘145 to provide this teaching.

First, as noted above, Applicants submit that Figure 6 is not prior art. Instead it is merely a conceivable construction, as discussed above. “The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure.” *In re Vaack*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991), MPEP § 2142. Thus, reliance on Figure 6 is improper.

Additionally, Applicants provide the additional comments with regard to JP ‘145. The Office Action interprets element 7 of JP ‘145 to be a cup-shaped second attachment fitting. It is unclear whether the Office Action argues that JP ‘145 discloses the recited changes in thickness. Applicants note that there is no disclosure in this reference concerning the thickness of element 7. According to MPEP §2125, “[w]hen the reference does not disclose that the drawings are to scale and is silent as to dimensions, arguments based on measurement of the drawing features are of little value.” Therefore, because the specification of JP ‘145 contains no disclosure of the thickness of element 7, the position of the Office Action based on hypothetical measurements of the drawings is not sufficient.

With regard to claims 8 and 9, the Office Action cites *In re Jones* to stand for the proposition that discovering the optimum or workable ranges involves only routine skill in the art. However, Applicants note that *In re Jones* actually discusses whether it was obvious to select one of six types of asbestos. This is not pertinent to whether it would have been obvious to design a cup-shaped attachment fitting having the claimed structure.

With regard to the shape of an element, MPEP §2144.04 (IV)(B) discusses that the configuration of an article is “obvious absent persuasive evidence that the particular

configuration...[is] significant.” Applicants respectfully submit that the structure of the cup-shaped attachment fitting is significant and provides for unexpected results. This is discussed in the specification where it is stated that:

By making the curved portion linking the bottom wall portion and the peripheral wall portion thick-walled in this manner, it is possible to ensure a yet higher strength to a stress due to the load input mentioned above. Such thickness variation was unable to impart with any conventional iron press-formed articles, and now is possible to impart for the first time by adopting aluminum material as in this invention. Thus it is feasible to achieve simultaneously the strength and weight reduction. Page 3, lines 29-37.

Because the structure of the recited portions of the cup-shaped attachment portion is significant and provides for unexpected results, it is unobvious. Accordingly, Applicants respectfully submit that the combination of references does not disclose or suggest the invention as claimed. Thus, Applicants respectfully traverse the rejection. Favorable reconsideration is respectfully requested.

**Claim 4 was rejected under 35 U.S.C. §103(a) as being unpatentable over Figure 6 in view of JP ‘145 and in further view of JP-6300079 (JP ‘079).**

It is the position of the Office Action that the combination of Figure 6 and JP ‘145 discloses the invention as claimed, with the exception of a sealing agent between the bolt and the second attachment fitting. The Office Action relies on JP ‘079 to provide this teaching, pointing to element 42. However, element 42 of JP ‘079 is not a sealing agent, but rather a recess portion. Thus, Applicants respectfully submit that the combination of the cited art does not disclose the invention as claimed. Favorable reconsideration is respectfully requested.

**Claim 7 was rejected under 35 U.S.C. §103(a) as being unpatentable over Figure 6 in view of Krajewski (U.S. Patent No. 4,762,310).**

It is the position of the Office Action that Figure 6 discloses the invention as claimed, with the exception of the lower end opening face being chamfered. The Office Action relies on Krajewski to provide this teaching.

In response, Applicants first submit that claim 7 is patentable due to its dependency on new claim 10. Additionally, Applicants respectfully submit that this rejection is improper, since it does not provide for the elements of original claims 1-3 and claim 5 which the Office Action acknowledges Figure 6 lacks, as mentioned above. To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). Favorable reconsideration is respectfully requested.

For at least the foregoing reasons, the claimed invention distinguishes over the cited art and defines patentable subject matter. Favorable reconsideration is earnestly solicited.

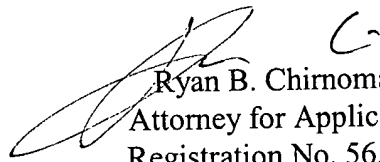
Should the Examiner deem that any further action by applicants would be desirable to place the application in condition for allowance, the Examiner is encouraged to telephone applicants' undersigned attorney.

Amendment  
Serial No. 10/527,800  
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If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

**WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP**



Ryan B. Chirnomas  
Attorney for Applicants  
Registration No. 56,527  
Telephone: (202) 822-1100  
Facsimile: (202) 822-1111

RBC/jl